WEST NILE VIRUS PREVENTION & CONTROL

The following recommendations are ways to decrease exposure to mosquitoes and the infections they may carry:

- Avoid outside activity at dawn and dusk during the mosquito season (May to October). This is particularly important for the elderly and small children.
- Wear protective clothing (long pants and long sleeves) and apply insect repellant when outside.
- Make sure that doors and windows have tight fitting screens. Repair or replace screens that have tears or holes in them.
- Drain all standing water on private property and stock permanent ponds with fish that eat mosquito larvae.
- Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.

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WHAT IS THE CALIFORNIA WEST NILE SURVEILLANCE PROGRAM?

WN virus has not been found in California through 2001. The California Department of Health Services (DHS) has overseen a statewide mosquito-borne encephalitis surveillance program since 1969 for WEE, St. Louis encepahlitis (SLE), and other viruses. In 2000, DHS and other agencies expanded the program to enhance the ability to detect WN virus. A protocol to report and test dead birds was added to the existing surveillance system for encephalitis cases, mosquito testing, and monitoring of sentinel chickens.

Encephalitis Case Surveillance

DHS monitors cases of human, horse, and ratite (e.g. emu, ostrich) encephalitis. The routine testing of encephalitis cases for WN virus will assist in the early detection of the virus in California. Human and animal encephalitis cases are also routinely tested for WEE and SLE viruses.

Mosquito Testing

Mosquitoes throughout the state are sampled for the presence of WN, WEE, and SLE viruses. Local mosquito and vector control agencies also monitor the abundance and type of mosquitoes.

Sentinel Chicken Testing

Approximately 200 chicken flocks are strategically placed throughout the state and are tested routinely during the mosquito season to detect evidence of infection from WN, WEE, or SLE viruses.

Dead Bird Surveillance

California began to test dead crows and related birds for WN virus in 2000. Although the virus has not yet been reported in California, monitoring the population of crows and other corvids will help identify the virus if it enters the State. State agencies, private organizations, and individuals participate in the surveillance program by reporting dead bird sightings. DHS arranges to collect the carcass from the location it was found if WN virus testing is indicated.

WHAT DO I DO IF I SEE A DEAD BIRD?

AMERICAN CROW
American crows are found throughout California. They have entirely black plumage, black beak, and black feet. Adult size is 17-21 inches from tip of tail to tip of beak.

If you find a dead bird, particularly a crow or other corvid (e.g., jay, magpie, raven, etc.), please call the number below promptly. Do not touch the bird. DHS will record all dead bird reports and will arrange for pickup and laboratory testing for WN virus when appropriate.

Dead Bird Surveillance and Contact Information:

West Nile Virus Dead Bird
Surveillance Program
Division of Communicable Disease Control
California Department of Health Services
Telephone: (510) 540-2356
E-mail: arbovirus@dhs.ca.gov

CALIFORNIA SURVEILLANCE AND FACTS ABOUT

West Nile Virus

WHAT IS WEST NILE VIRUS?

West Nile (WN) virus is a mosquito-borne virus that has been found in parts of Asia, eastern Europe, Africa, and the Middle East. The virus was first detected in the United States (U.S.) in 1999 in New York City.

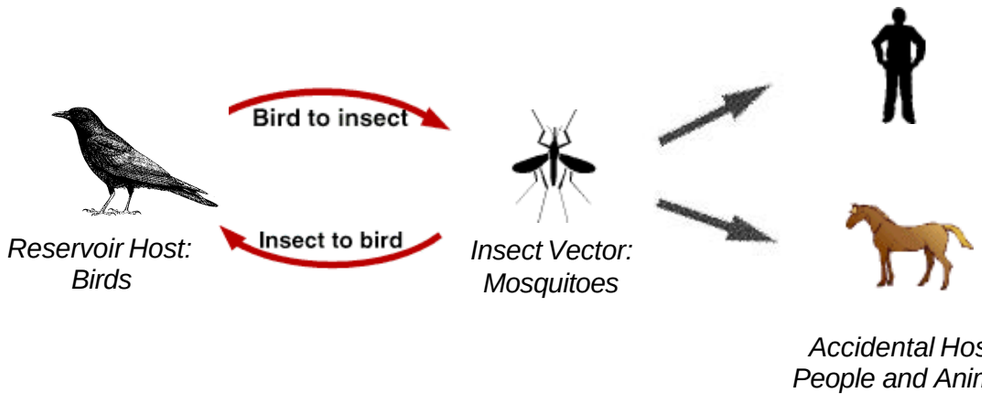
The majority of people and animals that are infected with the virus have a mild illness or no symptoms. In rare cases, the virus can cause a more serious condition called encephalitis, an inflammation of the brain. The elderly are at a higher risk for disease caused by WN virus. Since 1999, WN virus has been found in most of the eastern states and parts of the midwest. The virus will likely continue to spread westward.

HOW DO PEOPLE AND ANIMALS GET WEST NILE VIRUS?

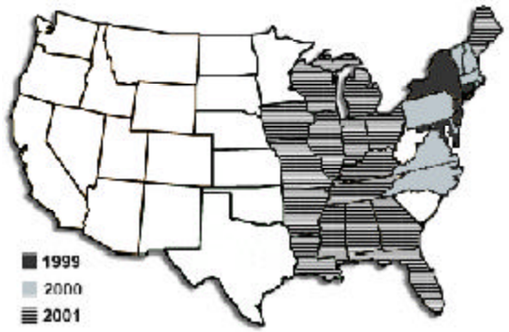
WN virus is transmitted to people and animals by infected mosquitoes. Only certain species of mosquitoes carry the virus and very few mosquitoes are actually infected. A mosquito first acquires the infection by feeding on a bird with virus in its blood. The virus lives in the mosquito and is transmitted to a new host in the mosquito saliva when the insect bites a person or animal.

Humans and horses are accidental hosts for WN virus. Human-to-human transmission does not occur. The virus is most prevalent from May to October when mosquitoes are most abundant.

TRANSMISSION CYCLE OF WEST NILE VIRUS



Spread of West Nile Virus in the United States 1999-2001



WHAT ARE THE SYMPTOMS OF WEST NILE VIRUS IN PEOPLE?

Most people who are infected with WN virus have no symptoms whatsoever. However, of those who become ill, symptoms can include fever, headache, nausea, body aches, mild skin rash, or swollen lymph nodes. In a few cases, the disease will progress to encephalitis. The time between the bite and the onset of illness, known as the incubation period, ranges from 5-15 days in humans. It is estimated that 1 in 150 people who are infected with WN virus will require hospitalization. Of the 49 confirmed human cases of WN virus in the eastern U.S. in 2001, five (10%) died. The elderly are particularly susceptible to clinical illness caused by WN virus. There is no specific treatment for infection with WN virus, although supportive care is important.

WHICH ANIMALS GET WEST NILE VIRUS?

An infected mosquito can bite any animal, but not all animals will become infected. The disease most often affects birds, but occasionally causes disease in other animals as well.

Birds

Wild birds are considered the reservoir of WN virus because they are the host from which the mosquito vector primarily acquires the virus. Infection has been reported in more than 70 bird species. Although many birds that are infected with WN virus will not appear ill, WN virus infection can cause serious illness and death in some birds. The most severe illnesses are seen among the corvid birds, which include crows, jays, ravens, magpies and related birds. American crows constitute the majority of the bird deaths due to WN virus reported in the eastern U.S.

Horses

Horses are also susceptible to WN virus. The disease does not seem to be specific to a particular breed or age of horse. Clinical signs of disease consist of central nervous system abnormalities similar to those caused by infection with equine eastern equine encephalitis (EEE) and western equine encephalitis (WEE). EEE and WEE vaccines are available for horses and are recommended for use in the spring. An equine WN virus vaccine under conditional USDA approval recently became available for horses.